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#### ABSTRACT

The roles of the teacher and clinician in the diagnostic reading situation are explored, and the importance of diagnosis for reading instruction is stressed. Emphasis on a child-centered program, with the classroom and the clinic viewed as basic structures for gathering diagnostic information, is recommended. Factors related to reliability, validity, and interpretation of information are also discussed. Strang's seven levels of diagnosis are listed to indicate the responsibilities of the classroom teacher as compared with those of the clinician. It is noted that a special report issued by the National Advisory Committee on Dyslexia and Other Related Reading Disorders (HEW) revealed that 15 percent of otherwise able students were experiencing difficulties in learning to read. The immediate concern indicated, then, is the discovery and treatment of these 8-million youngsters, a massive task that requires the training of individuals who can gather, analyze, and interpret the necessary data so that treatment may be applied. References are included. (WB)



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DIAGNOSIS
BY WHOM AND FOR WHOM?

The following is a summary of a speech delivered for Symposium II, Diagnosis and Prognosis in Reading. It was delivered May 7, 1970 at the International Reading Association Convention in Anaheim, California.

This paper has been designed to explore the role of the teacher and clinician in the diagnostic reading situation. It establishes "Diagnosis: By Whom?" in relation to the competency of the diagnostician and the level of diagnostic information desired.

It establishes "Diagnosis: For Whom?" by stressing the importance of diagnosis for the purpose of instruction. Here causes for retardation in reading have been viewed generally and specifically. There are causes for reading retardation that center within the child. There are

also external contributors for reading disability that center around the home and school. Regardless of the source of the disability, the child must always remain the center of concern. In order to accomplish this, cooperation must be solicited from all fields. Diversity of opinion and professional respect must be preserved. But, the center of concern must remain the child.

### INTRODUCTION

In a special report issued by the National Advisory Committee on Dyslexia and Other Related Reading Disorders, the Department of Health, Education and Welfare revealed that about 15% of the nation's otherwise able youngsters were experiencing difficulties in learning to read. This, the report continued, seriously impaired the learning abilities of about eight million American youngsters. (3)

Much has been written about the diagnosis of reading problems. Unfortunately, little has been done to unify all the fact and opinion that has appeared in the literature. Differences still exist as to what constitutes a reading problem although most experts agree that there is no one single cause.

The federal government has allocated 52.3 million dollars to pull this information together. (3) With eight million American youngsters disabled in reading there exists a problem of national concern. It is



for this reason that Commissioner Allen has issued his "Right to Read" mandate. He believes that every child by age ten should have reached the potential to read proficiently as an adult. With this mandate, those who are involved in diagnosis of reading problems have their work cut out for them.

### BACKGROUND

There are two basic structures for gathering diagnostic information on a child. There is the classroom and the clinic. The classroom may be a regular classroom or one designed specifically for remedial reading instruction. The clinic may be associated with a public or private school, university or some other profit or non-profit making organization.

The question of where the diagnosis takes place is superficial as long as the child is the center of concern. If profit or the support of a pet theory replaces this concern, then the question of where the diagnosis takes place is significant. Consider the following examples which have been presented to illustrate the current "state of mind" that exists in the field of reading:

Newspaper headlines proclaim: "Mothers Winning Lonely Battle," "Dr. Shedd: Tough Dedicated Crusader" (1)

Newspaper advertisements that, "Guarantee increased speed and comprehension--or your money refunded." Or still worse, appeals like, "Why settle for poor grades"...or "Learning Foundation makes learning easier." (2)

These misleading statements leave no doubt in your mind. The appeal is to the child not for him. One should be wary of such outstanding claims and the public should be informed likewise.



In terms of pet theories or approaches, the Delacato theory of neurological organization and reading disability serves as an indication of our ability to hear but not listen. Glass (5) reviewed the 15 studies cited by Delacato to support this theory. In almost all cases there were serious flaws in the design or analysis of the research. Glass tried not to take a position on the validity of the theory. But, he concluded that a generous assessment of all the research that Delacato cites has failed to provide cogent evidence that the Delacato therapy has any effect whatsoever on the reading performance of normal subjects with serious neurological disorganization. However, this hypothesis has not been subjected to adequate empirical tests.

The fact the field of reading has allowed such research to prevail is evidence of the idea that we are seeking a "cure-all" type answer. The current popularity of the term dyslexia supports this notion.

The true problem thus resides with the individuals who diagnose. The intent of the diagnostician and his competency are what is significant. This concern for competency of the diagnostician brings up several important considerations that center on the differences between those who gather the information and those who analyze it for instructional purposes. Who does a diagnosis, and where it is done, are important.

### RELIABILITY OF INFORMATION: MEASUREMENT

The first task of any diagnosis is the gathering of information.

The accuracy of this information is directly related to the competency



of those who gather it. Without accurate information no valid interpretation of a child's reading problems can be made. In essence all who gather data must take the role of a trained psychometrist.

Accuracy of information is enhanced if the individual gathering the data has been well trained. Experience with a wide variety of formal and informal tests is also essential. Often, parts of longer tests have to be administered. This means that the psychometrist must retain some degree of flexibility while adhering to strict standardized procedures.

In the scoring of tests another important factor must be considered. Some instruments allow for scorer influence or judgment. The score contains some degree of subjectivity and is not totally objective. The reliability of information is often jeopardized by this type of scorer influence.

## ANALYSIS OF INFORMATION--INTERPRETATION

Once the data has been gathered, the teacher or clinician needs to analyze or interpret it. There are several basic considerations that relate to the validity of any diagnosis.

First, one must recognize that tests have been designed for specific purposes. A diagnosis, in the classroom or the clinic, seeks specific information. The individual appraising the data must be certain that the purpose of the test matches his purpose for administering it. The data must fit the question being asked. For example, what effect



does visual perception have on reading achievement? Children with poor visual perception may have difficulty learning to read. There may be a high correlation between visual perception and reading achievement, but this does not guarantee that perceptual training will improve reading achievement.

A second point to consider is the knowledge of test scores and what they mean. The variety of tests that are available and on the market to-day yield considerably different kinds of scores. Grade scores, percentiles, stanines and normalized standard scores are only a few of the types of scores used.

Data from informal tests yield quite different types of information.

Reversals, omissions, insertions and hesitations are manifestations of specific kinds of reading problems. The diagnostician must be able to interpret and assimilate this wide variety of information.

Picture and sentence completion type tests reveal a vastly different kind of test information. Judgments from this type of test score cannot be made in isolation. Projective type data has best been used to support other types of descriptions. Here, the experience and capability of the diagnostician is extremely important. Through objective analysis he must be able to sort out the relevant information.

A third point to consider is the understanding of standardization procedures and norm group sampling. Not all tests need to be standardized, but those that are, must give accurate descriptions of their norm group populations. This is extremely important. The performance of



youngsters being tested has to be described in relation to this norm group sample. How well the youngsters perform is going to be compared to the performance of other youngsters located in the norm group.

The two most popular tests used in the assessment of a child's mental ability are WISC and the Stanford-Binet. These tests have been accepted by many as the models of test perfection. Indeed, they may well be the best yet. However, there are some interesting conditions in the norm groups that should be reviewed.

The norm groups for the WISC have been well defined in the manual. The test was standardized on 2200 youngsters, 1100 male and 1100 female from age ranges 5 through 15. Urban-rural populations were considered on the basis of the 1940 census. Parental occupations were delineated into nine separate categories. Thus, the test constructors considered a variety of variables in establishing their norm group sample. (10)

Recent investigations have raised some interesting questions concerning the adequacy of the norm groups of these two tests. If one views the WISC total population, 2200 students seems like a large figure. But, if you recognize that this figure was broken down into eleven separate age ranges, and considering the 1100 male-female ratio, then, there were only 100 males and 100 females in each age range.

Secondly, the WISC norm group was drawn from an all white sample. What relevance does this have in an urban setting where the ratio of black to white is 45% black to 55% white? It may also be noted here



that none of the occupational categories included the unemployed. How representative is the sample of a city like New York? (It may be noted that .7% did not report an occupation.)

There was one final question that grew from this very quick survey of the WISC norms. This question concerned the use of the 1940 census figures for determining the urban-rural population proportions. These figures were reported in the manual to be 57.9% urban and 42.1% rural. Does this description fit our class structure today? Would city, suburban, and rural be more accurate descriptions? There have been indications that the rural population has dropped below 30% of the total population. How much of a difference does this make in describing the capacity of students? All of these questions seem to point to a need to update WISC norms. Cronback (3) illustrates this need with examples of student performance on the Stanford-Binet, the WISC and WAIS. He concluded, after viewing disturbing differences in mean IQ scores and standard deviations, that "one test or the other was standardized on an unrepresentative sample, but we have little basis for judging which is at fault."

The point of this paper has not been to analyze the inaccuracies of these tests, but the examples illustrate how much an individual must understand in analyzing and interpreting test results.

# KIND OF INFORMATION

The question of By Whom? also involves the aspect of level or depth of evaluation. The classroom teacher most certainly uses diagnostic procedures in her everyday teaching experience. However, there are some



problems that go beyond the realm of her responsibility. She has neither the time, material nor training to take a clinical approach to diagnosis.

Strang (9) has listed seven levels of diagnosis. These have been altered somewhat to indicate the responsibility of the classroom teacher as compared to the clinician or diagnostician. Levels one through four have been accomplished by many classroom teachers. The remainder of the list requires the skill and time of a specialist.

### SEVEN LEVELS OF DIAGNOSIS

- 1. Observation of a student's behavior while reading.
- 2. Collection of information concerned with a student's reading performance.
- 3. Analysis of a student's reading process rather than performance.
- 4. Analysis of introspective or self-report types of information.
- 5. Analysis of mental abilities that support success in reading.
- 6. Analysis of personality traits that influence reading.
- 7. Analysis of neurological patterns.

Items one through four have been accomplished in regular and remedial classrooms. The diagnostician should be proficient on all levels.

Generally, all diagnosis should center on the child. The question of who does this diagnosis depends primarily upon the purpose for the evaluation. The more severe the problem, the more necessary it becomes to call upon the clinician when she needs help. Future diagnostic needs tend to stress a very storng reliance upon cooperation between fields of study.



DIAGNOSIS: FOR WHOM?

#### THE GROUP PERSPECTIVE

Obviously, any diagnosis should center on the child. Children have a variety of problems that contribute, not only to their inability to learn to read, but also to learning in general.

Eisenberg (4) has illustrated the "For Whom" aspect of diagnosis by describing several sixth grade populations in terms of reading achievement. His data included information on urban, suburban and private school populations.

In the urban population he tested 12,000 children and discovered 27.5% of that population was two years or more retarded in reading. Only 8.6% were reading two years or more above their expected level. He tested the youngsters in the six year-fifth month and used this median as their expected level.

IQ test data indicated that the median IQ was between 94 and 95. The median Reading Achievement grade level was 5.2. This indicates a significant shift to the left in the distribution of scores. The need for diagnostic and remedial services, apparently resides in the urban center. Other contrasting data cited by Eisenberg support this generalization.

Data was gathered from 8,000 sixth grade students in suburban communities and 200 sixth grade students from private schools. These populations were in the same metropolitan area. (Caution should be used in



interpreting this test data for the same tests were not employed across the populations. This leaves some question as to the validity of the information gathered.) If the trends or directions indicated by these tests have some validity, it may well be an indictment of the indifference of our urban public school systems. Children in the urban centers need help.

Data compiled for sex and race indicate that the male has more need as compared to the female. The failure for black students was three times as great as the failure rate for white students. Twelve percent of the white population failed, 36% of the blacks failed. Within each group the male rate remained significantly higher than the female rate. (2)

Not only does the urban child need help. But, the black urban male seems to be at an extreme disadvantage.

# LOOKING AT "FOR WHOM":

### THE INDIVIDUAL PERSPECTIVE

In evaluating information gathered about any child, the diagnostician should recognize that some reading disabilities stem from sources within the child. These are endogenous causes. Some of these causes have been listed as sensory or intellectual defects. Brain damage also contributes to a reading disability and has been classified an internalized source.

There are also causes that contribute to reading problems that originate outside the child. These environmental factors of home and school may at some later time become internalized, but they nevertheless, stem from an outside source.



In viewing the child as the locus of any investigation, one must recognize that the internal and external designations have been artificially determined. There is no dichotomy. There is a child with problems in reading and learning.

However, in 50 years of research, Kaluger and Kolson (7) have reported that the end result of most research has been termed "inconclusive." Of all the children who have been studied with "internal" or "external" sources of reading disability there has been no ample evidence to support one theory. All theories seem rational and make some sense. Yet, each has its own weakness.

Advocates of a particular approach or theory point to their successes. Opponents, sometime rather vindictively, pick at the weaknesses. In most cases, the child has been lost in the controversy.

The conclusion that no theory has been sufficiently developed to explain reading problems is not surprising. Children have been used to support a theory. In some cases they have been selected. The point is, that children have not been comprehensively studied. They have been analyzed in relation to how well they support a particular point of view. It's like trying to study history without understanding people.

Reading problems are the product of a child's unique interaction with his environment. Internally and externally he must be studied. The home, the school and the child must be studied. This can only be



done cooperatively. Physicians, educators, psychologists and experts from the fields of vision must unify to form a cooperative effort centered on each child.

Krippner (8) in his review of 15 causes of reading disability brings to light a "cold war" that exists between the two professions in vision. He reported that up until now, there had been little cooperation between opthamologists and optometrists. He also reported that the AMA had lifted its restriction which prevented ophthalmologists from working with optometrists. This should aid future research efforts.

Psychologists and educators must also end their "cold war". Cooperative programs must be developed betweem colleges of education and psychology. Regardless of philosophy, there should be an active dialogue that contributes to a more thorough understanding of the child in relation to reading disorders.

Medical specialists, psychologists and educators must discard useless, dead-end diagnoses like "dyslexia" for they do a child no good. This label has been used as a research term to classify youngsters. Unfortunately, it has been applied as a "band-aid" for the bruised egos of anxious parents. Intelligence, achievement, and attitude in terms of modes of learning must be investigated. They must be investigated cooperatively. This is not to say that disagreement between disciplines cannot exist. Indeed it must. But, each must be in tune with and understand the other.

With the child as the center of concern psychologists and medical experts as well as vision experts can aid the educator in the ultimate task which is the treatment of reading problems.



# SUMMARY

In summary, the task of discovering and treating the reading difficulties of 8 million children is an immediate concern. Whether these causes are external or internal is of secondary concern. Educators must work with them right now!

There is a need for trained and experienced data gathers. Even more important is the training and development of individuals who can analyze and understand this data so that treatment can be applied.

This is a massive task and involves the coordination of divided opinion and research. Now is the time to "get on with it." If not, someone else may. The business community has been waiting to unleash the advanced technology it has already developed for its own educational programs. With the influence of 52.3 million dollars, it may well have that opportunity.

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